EXHIBIT "EHG-RW-5"

Murray Affidavit

BEFORE THE STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

Proceeding on Motion of the Commission to Examine New York Telephone Company's Rates for Unbundled Network Elements	**Case 98-C-1357**

AFFIDAVIT OF TERRY L. MURRAY IN SUPPORT OF THE JOINT COMMENTS OF COVAD COMMUNICATIONS COMPANY AND RHYTHMS LINKS INC. CONCERNING THE PROPOSED RATES OF BELL ATLANTIC – NEW YORK FOR ADSL-QUALIFIED, HDSL-QUALIFIED, AND DIGITAL-DESIGNED LINKS

I, TERRY L. MURRAY, being first duly sworn on oath, depose and say:

Qualifications

1. My name is Terry L. Murray. I am an economist and consultant, specializing in analysis of regulated industries. My business address is Murray and Cratty, LLC, 227 Palm Drive, Piedmont, California 94610.

2. I received an M.A. and M.Phil. in Economics from Yale University and an A.B. in Economics from Oberlin College. At Yale, I was admitted to doctoral candidacy and completed all requirements for the Ph.D. except the dissertation. My fields of concentration at Yale were industrial organization (including an emphasis on regulatory and antitrust economics) and energy and environmental economics.

3. My professional background includes work and consulting experiences in the fields of telecommunications and energy regulation, with a specialization in regulatory and antitrust matters. As a consultant, I have testified or served as an expert in proceedings before state regulatory commissions in California, Colorado, Connecticut, Delaware, the District of

Columbia, Florida, Hawaii, Illinois, Kansas, Maryland, Massachusetts, Michigan, Nevada, New Jersey, New York, North Carolina, Pennsylvania, South Carolina, Texas, Vermont, Virginia, Washington and Wisconsin, and before the Federal Communications Commission ("FCC"). Many of my consulting engagements over the past three years have involved costing and pricing for unbundled network elements and collocation. Before I became a consultant in 1990, I was employed as an economist and manager at the California Public Utilities Commission for approximately six years and had significant responsibility for telecommunications matters. I have also taught economics and regulatory policy at both the undergraduate and graduate levels. Attachment TLM-1 to this Affidavit provides further detail concerning my qualifications and experience.

Purpose

4. The purpose of this Affidavit is to provide factual support for the Joint Comments of Covad Communications Company ("Covad") and Rhythms Links Inc. ("Rhythms") concerning the amendments that New York Telephone Company, d/b/a Bell Atlantic – New York ("BA-NY"), filed on August 30, 1999, to its Tariff P.S.C. No. 916. Those amendments introduced rates and regulations for four types of unbundled loops capable of carrying Digital Subscriber Line ("DSL") services: namely, ADSL-Qualified Links, two-wire and four-wire HDSL-Qualified Links and Digital-Designed Links. At the request of Covad and Rhythms, I have reviewed the tariff amendments; the September 13, 1999, Joint Affidavit of Carmelo R. Curbelo, Amy Stern and James F. Schafer ("Joint Affidavit") that provided BA-NY's supporting rationale for its proposed tariff changes; and the cost materials attached as Exhibit A to that Joint

Affidavit. My Affidavit identifies the economic and policy issues associated with the proposed prices described in the tariff amendments and the Joint Affidavit.

Background

5. This proceeding, focusing on advanced services, offers the Commission one of its first opportunities to secure an important benefit of the Act for all New York consumers — the delivery of innovative, improved services, at better prices, to New York consumers than were available in the previous single-provider environment. The Commission's decisions in this proceeding will determine the degree to which competitive market forces will drive the spread of such advanced services to all New York consumers as quickly as possible.

6. DSL is an emerging technology with great promise for meeting the need for advanced telecommunications services. There is a compelling public interest mandate to encourage the spread of such technologies. Pursuant to this goal, the FCC has determined that the network design used to estimate the costs of unbundled network elements and universal service should not impede access to advanced telecommunications services for any customer.[1] For all of these reasons, it is important for the Commission to insure that the prices, terms and conditions under which BA-NY offers unbundled DSL-capable loops do not discourage competitive entry into this market, which would thwart the public policy goal of encouraging the widespread provision of advanced telecommunications services.

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[1] In the Matter of Federal-State Joint Board on Universal Service, CC Docket 96-45, Report and Order, (May 8, 1997), ("FCC Universal Service Order"), at ¶ 250(1).

7. New competitors, such as Covad and Rhythms, are offering a wide range of services and options. As in other segments of the local exchange business, however, the potential for new entrants to accelerate the delivery of competitive benefits to DSL customers depends on the new entrants' ability to obtain access to customers on terms and conditions that place them on an even competitive footing with BA-NY. BA-NY, in contrast, has an incentive to leverage its control over local loops and other elements of the local exchange network into dominance of the provision of new telecommunications services such as DSL. BA-NY can leverage its incumbency advantage by slowing new entrants' efforts to offer services that BA-NY itself is not prepared to offer, requiring entrants to purchase unnecessary elements and charging excessive prices for network elements. How the Commission resolves these issues will in large measure determine when or whether the promise of the Telecommunications Act of 1996 ("Act") becomes a reality in New York.

8. To avoid any delay in getting the benefits of DSL-based services to as many New York consumers as possible, the Commission must address the prices, terms and conditions under which new entrants such as Covad and Rhythms can obtain needed facilities from BA-NY. Until the Commission resolves the competitive issues concerning DSL-based services, New York consumers may not only be denied a choice of DSL providers, they may also be denied choices in the types of DSL-based services provided and even, in some cases, be denied any DSL option whatsoever.

9. This Affidavit focuses on costing and pricing issues and does not address the appropriateness of BA-NY's attempt to limit the uses to which a competitor may put any specific

variety of unbundled loop that BA-NY offers. Silence on this issue does not constitute agreement that the Commission should allow BA-NY to impose any such restrictions.

10. To the contrary, such restrictions would appear on their face to be both discriminatory and a violation of FCC rules.[2] For example, BA-NY's retail ADSL service uses the same loop to provide both POTS and DSL-based service.[3] It is my understanding that the company recovers the loop-related costs through the POTS service. The obvious implication is that BA-NY is using ordinary, unrestricted analog loops to provide DSL-based services. Yet BA-NY seeks to impose limitations on its competitors' use of ordinary analog loops — restrictions that may affect the competitors' costs or cause delays in the competitors' ability to provide service. Thus, the Commission cannot consider the costing and pricing of DSL-capable loops in a vacuum. The terms and conditions associated with those loops will have important implications for the competitive outcome in New York.

Overview of BA-NY's Filing

11. The BA-NY tariff amendments propose monthly recurring charges for the four types of unbundled DSL-capable loops and a host of "ancillary" charges for loop qualification and loop "conditioning," all but one of which are non-recurring charges. These ancillary charges would

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[2] 47 C.F.R. § 51.309(a) states that "[a]n incumbent LEC shall not impose limitations, restrictions, or requirements on requests for, or the use of, unbundled network elements that would impair the ability of a requesting telecommunications carrier to offer a telecommunications service in the manner the requesting telecommunications carrier intends."

[3] This practice is sometimes referred to as "line sharing." BA-NY does not currently permit competitors to offer their DSL-based services in a line-sharing arrangement with BA-NY's retail POTS services.

apply in addition to the more general non-recurring charges (*e.g.*, service order charges) applicable to those loops.

12. The Commission's September 9, 1999, "Notice Inviting Comments on Non-Recurring Charges For DSL Links" deferred consideration of the proposed basic monthly recurring charges for unbundled DSL-capable loops to the third module of this proceeding. Therefore, I will not address those basic recurring charges in this Affidavit except insofar as they provide a necessary context for the evaluation of the ancillary charges that BA-NY has proposed.

13. The documentation for BA-NY's proposed ancillary charges consists of the Joint Affidavit and the cost materials attached as Exhibit A thereto. Generally, the cost support provided is at a high summary level.

14. The cost support for the non-recurring charges consists of:

- a list of tasks (with a brief description of each task in the Joint Affidavit);
- an hourly labor rate associated with the technician(s) performing each task;
- an estimate of the time in hours needed to perform each task; and
- an estimate of the frequency with which the task will occur.

The Joint Affidavit indicates that BA-NY developed the list of tasks and the task time estimates exclusively through "consultation" and "discussions" with subject matter experts.

15. This Commission has expressed concern that cost studies relying solely on expert opinion are "wholly judgmental" and "on less solid ground" than more formal study methodologies. BA-NY's previous non-recurring cost studies based solely on subject matter expert opinion were, in the Commission's view, "simply unacceptable" and "lacking the

documentation needed in a proper cost study."[4] The faults in the prior studies included the failure to document "such crucial matters as how the panel of experts conducted its work, how many of the 33 experts were called on to estimate the work times for each function, how wide a range of estimates they produced, and how the range of estimates was analyzed to produce the final result."[5]

16. BA-NY has once again failed to provide the needed documentation concerning the subject matter expert opinions upon which it has relied in the cost support for its proposed ancillary DSL charges. BA-NY has not identified those experts and their qualifications and has not provided specific detail concerning the process by which it developed the list of tasks and task time estimates. Nor has BA-NY provided any additional factual data to substantiate the time estimates of its subject matter experts.

17. This lack of documentation creates serious difficulties in analyzing BA-NY's cost results. For example, the Joint Affidavit states at paragraph 55: "In some instances, worktimes were determined separately for alternative provisioning scenarios; these worktimes were then combined into a weighted average based on the percentage of times in which each particular scenario would occur." The cost support in Exhibit A shows the actual weightings for each scenario (*e.g.*, the assumed percentage of underground vs. aerial plant involved when load coils and bridged taps are being removed), but does not provide any source or support for those

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[4] State of New York Public Service Commission, Case No. 95-C-0657, 94-C-0095 and 91-C-1174, Opinion No. 97-19, hereinafter "Opinion and Order in Phase 2," at 53-54.

[5] *Id.* at 53-54.

weightings. Therefore, one can only speculate about the accuracy and appropriateness of these weighting factors, which have a significant effect on the final cost results.

18. The one recurring ancillary charge, for the creation and maintenance of a mechanized loop qualification database, suffers from a similar lack of documentation. BA-NY's cost support identifies several factors that significantly affect the calculated cost for this function. These factors include: the total time per line for testing and analysis to perform initial loop qualification, the number of lines being pre-qualified per year, the total time per line for annual updates to the database and a forecast of the total number of DSL lines that BA-NY and its competitors will be providing in New York. BA-NY has provided no documentation for any of these study inputs.

19. Rhythms has propounded several data requests intended to elicit the necessary information to conduct a detailed analysis of the BA-NY cost support. Responses to these data requests were not available prior to the filing of this Affidavit. When this information becomes available, I will supplement and amend this Affidavit as necessary to reflect the new data.

Economic Framework of Analysis

20. The BA-NY tariff amendments deal with proposed recurring and non-recurring charges for unbundled loops that competitors will purchase from BA-NY to provide DSL services to end users. The FCC has identified such loops as unbundled network elements that incumbent local exchange carriers must provide to new entrants under the terms of the Act.[6]

[6] *See* the FCC's September 15, 1999, news release concerning its Third Report and Order and Fourth Further Notice of Proposed Rulemaking in CC Docket No. 96-98 (FCC 99-238). The FCC had not released the full text of this order at the time that I completed this Affidavit.

21. Under the FCC's pricing rules for unbundled network elements, incumbents must offer such elements at prices based on forward-looking economic cost.[7] The FCC has defined forward-looking economic cost as the sum of "(1) the total element long-run incremental cost [TELRIC] of the element" and "(2) a reasonable allocation of forward-looking common costs."[8]

22. The cost support in Exhibit A to the Joint Affidavit indicates that the proposed ancillary charges consist of direct costs plus a 10.5% adder for common overhead costs and a 0.17% gross revenue loading to recover regulatory fees and uncollectibles. BA-NY characterizes the direct costs plus the 10.5% common overhead adder as being TELRIC.

23. I have not attempted to determine the reasonableness of BA-NY's 10.5% common overhead loading, in part because BA-NY has provided no support for this loading factor. I note, however, that the Commission should ensure consistency in the calculation and application of the overhead loading factor across all elements and charges, recurring and non-recurring. Thus, the Commission should re-evaluate the overhead loading factor built into any interim ancillary charges for DSL-capable loops when it considers updates and revisions to BA-NY's recurring costs in the third module of this proceeding.

24. My analysis has focused instead on the consistency between BA-NY's reported direct costs for these ancillary functions and the FCC's TELRIC methodology. The TELRIC methodology requires the minimization of *total* forward-looking costs, both recurring and non-recurring. The FCC has defined TELRIC as "the forward-looking cost over the long run of *the*

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[7] 47 C.F.R. § 51.505.

[8] *Id.*

total quantity of the facilities and functions that are directly attributable to, or reasonably identifiable as incremental to, such element, calculated taking as a given the incumbent LEC's provision of other elements."[9] TELRIC is "based on the use of the most efficient telecommunications technology currently available and *the lowest cost network configuration*, given the existing location of the incumbent LEC's wire centers."[10]

25. To achieve total cost minimization, it is essential that recurring and non-recurring costs be computed for the same network configuration. Alternative network designs reflect different tradeoffs between the kinds of costs usually classified as recurring (capital costs and costs for ongoing operations and maintenance) and those classified as non-recurring (one-time costs caused by a particular service order).

26. For example, under certain conditions, the monthly recurring cost of loop plant with copper feeder is less than the monthly recurring cost of loop plant with fiber feeder and Digital Loop Carrier ("DLC"). Long loops with copper feeder require load coils to achieve acceptable transmission standards for voice-grade services. Those load coils impede the transmission of services such as ISDN and DSL and therefore must be removed from copper-based loops that are used to provide such advanced services. Removal of load coils causes a non-recurring cost that the carrier would not incur if it had a network with 100% fiber feeder. A carrier with a copper-based network would incur the lower recurring cost associated with that network design and the higher non-recurring cost associated with providing advanced services over such a network. A

[9] 47 C.F.R. § 51.505(b), emphasis added.

[10] 47 C.F.R. § 51.505(b)(1), emphasis added.

carrier with a fiber-based network would incur the reverse pattern of recurring and non-recurring costs.

27. Failure to compute recurring and non-recurring costs based on a consistent network design can lead to a systematic bias, upward or downward, in the estimation of total forward-looking costs. In the previous example, computing recurring costs based on an all-fiber network and non-recurring costs based on an all-copper network would lead to an overstatement of total forward-looking costs. The flip side — computing recurring costs based on an all-copper network and non-recurring costs based on an all-fiber network — would lead to an understatement of total costs.

28. The California Public Utilities Commission recently reached a similar conclusion in its investigation of the non-recurring costs associated with unbundled network elements. The California Commission found: "it makes little sense to model one type of network for unbundled elements and then assume a different network exists for ordering and provisioning the same unbundled elements. We will evaluate Pacific's model and parties' proposals using the forward looking network we have previously assumed."[11]

29. The California decision also provided a specific example of the type of double-recovery that could occur if the networks assumed for recurring and non-recurring costs were not the same.

> In D.96-08-021 and D.98-02-106, we adopted Pacific's loop and access line costs based on a mix of copper and fiber. In the recurring

[11] California Public Utilities Commission Decision 98-12-097, issued December 17, 1998, in Dockets R.97-04-003/I.93-04-002, at 34.

> phase of this proceeding, Pacific assumed a 52%/48% copper/fiber ratio. We think it would be both unfair and unreasonable to allow Pacific recurring cost recovery based on this ratio and then allow a different network mix in developing its nonrecurring costs. It would amount to allowing double recovery of NGDLC costs by overstating Pacific's nonrecurring cost studies.[12]

The California Commission's concern regarding double recovery of Next Generation Digital Loop Carrier ("NGDLC") costs exactly parallels my concern regarding BA-NY's proposal to recover forward-looking loop recurring costs and embedded or actual non-recurring costs for DSL "conditioning."

30. The failure to use a consistent network design to estimate recurring and non-recurring costs is the single greatest conceptual flaw in BA-NY's cost support for its proposed ancillary charges associated with DSL-capable loops. BA-NY based the monthly recurring charges for these loops on the Commission-approved recurring charges for analog loops. The network design for those analog loops assumes ubiquitous deployment of fiber feeder and DLC equipment. However, BA-NY based the non-recurring charges for loop "conditioning" on cost studies that assume 85% deployment of copper feeder throughout the network[13] and 100% deployment of copper feeder on loops used to provide DSL-based services.

31. BA-NY concedes that the cost studies that form the basis for the monthly recurring charges for unbundled loops reflect a forward-looking network design that does not include load coils. Yet BA-NY seeks to charge for the removal of load coils, claiming that it is appropriate to

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[12] *Id.* at 70.

[13] The 85% figure represents the percentage of loops involved in pair "swaps" that BA-NY estimates will be copper-to-copper, as opposed to fiber-to-copper, swaps.

base ancillary charges for DSL-capable loops on its embedded network design because competitors seek access to its copper-based loops to provide DSL-based services.

32. Contrary to BA-NY's assertion, the assumption of a network in which load coils (and bridged taps) must be removed from certain loops to make those loops DSL-capable is fundamentally incompatible with the least-cost, most efficient technology assumptions of a forward-looking economic cost study. The FCC guidelines for universal service cost studies, for example, explicitly prohibit the inclusion of such equipment in a forward-looking economic cost study because loops configured with such equipment do not provide universal access to advanced telecommunications services.[14]

33. Under TELRIC, the network design for digital loops must reflect efficient, forward-looking design principles, not the attributes of BA-NY's embedded plant. The FCC's TELRIC methodology precludes the consideration of embedded costs (*i.e.*, costs "incurred in the past and that are recorded in the incumbent LEC's books of accounts").[15]

34. It is also a violation of TELRIC principles to levy a monthly recurring charge for DSL-capable loops based on a network with 100% fiber feeder and DLC while simultaneously imposing non-recurring charges for the same loops based on an all-copper network that deploys load coils on loops over 18,000 feet long. The effect of this approach is to overstate the total costs attributable to a competitor's purchase of unbundled DSL-capable loops.

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[14] FCC Universal Service Order at ¶250(1). In a sense, load coils "condition" loops to provide only analog service.

[15] 47 C.F.R. § 51.505(d).

35. An analogy illustrates the improper effect of BA-NY's mix-and-match approach to costing DSL-capable loops. Consider two alternatives to obtaining a race car capable of achieving speeds up to 200 miles per hour: a custom-built car designed only for off-street racing or a stock car modified to attain higher speeds. The custom-built race car has a higher capital cost than the unmodified stock car, but requires no modifications to be capable of speeds up to 200 miles per hour. The minimum cost to obtain a race car that can go 200 miles per hour is the lower of the capital cost of the custom-built race car versus the capital cost of the unmodified stock car *plus* the capital and labor cost of the necessary modifications.

36. BA-NY's approach to costing and pricing unbundled DSL-capable loops is the equivalent of charging a customer for a custom-built race car, delivering a stock-model Chevy and then demanding that the customer pay for modifications to make the Chevy competitive with an Indy car on the race track. A firm selling race cars would soon lose its customers to alternative suppliers if it routinely attempted such bait-and-switch tactics.

37. The Commission should not permit BA-NY to levy a monthly recurring charge that reflects the higher cost of a network with 100% fiber feeder and DLC relative to an all-copper network *and* a non-recurring charge to remove load coils that would not exist in an all-fiber-feeder network design. Such an approach double-counts the cost of providing loops that are free of load coils. BA-NY would incur the incrementally higher recurring cost for a fiber/DLC network design in part to avoid the deployment of load coils that inhibit the provision of advanced services such as ISDN and DSL.

38. The double-counting in BA-NY's cost support for ancillary charges is particularly egregious because BA-NY is attempting to make its competitors pay for network modernization that its ratepayers have already funded through retail rates. I understand that this Commission has permitted BA-NY to reduce the depreciation lives for its copper outside plant facilities and has reflected the higher depreciation charges in rates as a means of funding network modernization. Yet BA-NY apparently still has copper facilities in its network that reflect long-outmoded designs such as the use of load coils and excessive bridged tap. Now, BA-NY proposes to charge its competitors for the cost of upgrading its plant to meet design standards that have been in place for decades. The Commission should reject this improper attempt to recover costs for upgrading BA-NY's embedded network and should hold BA-NY accountable for providing a network up to the standards for which BA-NY's ratepayers have already paid.

39. If the Commission permits BA-NY to impose any loop "conditioning" charge for pair swaps or the removal of load coils, it should require BA-NY to reduce the monthly recurring charge for unbundled DSL-capable loops to eliminate the cost for the fiber feeder and DLC equipment. Such a step would be the equivalent of calculating a monthly recurring cost for an all-copper loop, but treating the copper feeder as a "sunk" cost. "Sunk" cost treatment of copper feeder would be appropriate if, as is assumed in the current generation of BA-NY recurring cost studies, BA-NY would never deploy copper feeder in its forward-looking network design. Moreover, BA-NY's tariff for DSL-capable loops specifically states that the company will not build new copper facilities to accommodate the demand for such loops, further justifying treatment of the copper feeder as a "sunk" cost.

40. The Commission may well wish to reconsider this network design assumption when it revisits BA-NY's recurring loop cost studies. The cost support that BA-NY has provided for its proposed recurring charge to recover the cost of creating and maintaining a mechanized loop qualification database indicates that the company expects to provide more than two million retail and wholesale DSL loops during the next five years. The technology that BA-NY deploys to provide its retail DSL-based services, like the technology that competitors use in providing DSL-based services over BA-NY's unbundled loops, generally requires the use of an all-copper loop.[16] It is difficult to see how a loop plant design that cannot accommodate the provision of advanced services to over two million customers could be a forward-looking network design.

41. Thus, I strongly concur with BA-NY's observation that it will be necessary to revisit the ancillary charges for unbundled DSL-capable loops when the Commission considers the revisions to BA-NY's recurring cost studies for unbundled loops. Any ancillary charges adopted prior to the determination of the "final" forward-looking loop plant design should be interim and subject to true-up.

[16] The primary exception to this rule is the provision of IDSL services (at speeds moderately above BA-NY's retail ISDN service). Given current-generation commercial DSL technology, IDSL services can be provided over loops provisioned with fiber feeder and DLC equipment.

Loop Qualification Charges

42. Competitors will incur loop qualification charges whenever they seek to obtain a DSL-capable loop from BA-NY, regardless of whether BA-NY proves to have a suitable loop available at that location. BA-NY proposes three different loop qualification charges[17]:

- a monthly recurring charge of $0.36 for mechanized loop qualification;
- a non-recurring charge of $40.37 for manual loop qualification; and
- a non-recurring charge of $113.95 for an engineering query.

43. According to the Joint Affidavit, BA-NY's proposed monthly recurring charge for mechanized loop qualification is designed to recover the cost of creating and maintaining a database that provides two pieces of information: (1) the metallic loop length (including any bridged tap) and (2) a yes/no indicator that reports whether the loop in question meets the technical requirements of BA-NY's retail ADSL offering. Competitors may query this database via an electronic interface.

44. The Joint Affidavit's description of the way in which BA-NY is developing this database and the cost support in Exhibit A thereto appear to be contradictory. According to the Joint Affidavit, BA-NY is developing by database through MLT testing of a sample of loops at each terminal. Exhibit A, however, appears to calculate the initial cost of creating the database

[17] The proposed BA-NY charges cited here and throughout this Affidavit reflect the values shown in Exhibit A to the Joint Affidavit. In several cases, these prices are lower than the figures quoted in BA-NY's August 30, 1999, proposed tariff amendments. I have consistently cited to the September 13, 1999, Exhibit A prices because they correspond to the cost support in the Joint Affidavit and Exhibit A. The Joint Affidavit indicates at paragraph 18 that BA-NY has revised its proposed prices to reflect the result of the company's further consideration of the underlying costs for these functions. BA-NY has not, however, filed new tariff pages showing the revised prices.

by multiplying the labor cost per MLT test by the total number of loops to be included in the database (*i.e.*, a sample of 100% of the loops). Neither the text of the Joint Affidavit nor Exhibit A provides any supporting documentation or explanation for the amount of labor BA-NY has assumed it will require to develop and maintain the database.

45. What is clear from the Joint Affidavit and the associated cost support is that BA-NY has consciously structured the mechanized loop qualification database to be of use primarily to its own retail personnel. It has included only a summary indicator that is specific to the equipment of BA-NY's vendor and the deployment decisions that BA-NY has made for its retail service offering. In doing so, BA-NY has masked the underlying loop makeup data that its own engineers must evaluate to determine the suitability of particular loops for BA-NY's retail ADSL service.

46. Thus, it is disingenuous for the Joint Affiants to suggest that a competitor can avoid incurring BA-NY's proposed manual loop qualification and engineering query charges if it requires no more detailed information than BA-NY requires to determine the suitability of a loop for its retail DSL-based offerings. There are several reasons that a loop may fail to meet BA-NY's technical requirements for its retail ADSL offering. For example, in addition to some specific loop length cutoff, the loop may fall short of BA-NY's specifications because it requires "conditioning" (*i.e.*, the removal of load coils or bridged tap) or is provided over fiber feeder and DLC systems. The yes/no indicator in BA-NY's mechanized retail loop qualification database does not contain any of this detailed information.

47. To obtain more detailed information, a competitor must, at a minimum, pay an additional manual loop qualification charge to BA-NY. BA-NY will then tell the competitor, in addition to the information available through a query of the loop qualification database, whether the loop has load coils and whether the loop is provisioned over fiber feeder and DLC equipment. Competitors such as Covad and Rhythms require this more detailed information to determine, *e.g.*, whether a loop that may be unsuitable for higher-speed DSL applications could be used to provide IDSL. BA-NY's decision to exclude this information from its loop qualification database, based on its own retail requirements, is the sole reason that the competitor would incur a manual loop qualification charge for loops in wire centers that have been entered into the mechanized database.

48. BA-NY also proposes to impose the manual loop qualification charge for loops in central offices that have yet to be added to the company's mechanized loop qualification database. A charge for an interim, inefficient, manual process is not, by definition, a charge based on *long-run* costs. Therefore, the manual loop qualification charge is inconsistent with the standards previously adopted by this Commission and with the FCC's requirements. Moreover, providing BA-NY compensation for whatever manual, inefficient process it invents for competitors creates the wrong incentive. As long as BA-NY can pass along to its competitors the cost of whatever manual, short-run processes it imposes, the company will have every incentive to delay implementation of more efficient, electronic interfaces. Indeed, with such a pricing policy, BA-NY will have an incentive to delay implementing mechanized handoffs for all future provisioning enhancements related to new services so as to keep the costs of its potential

rivals artificially inflated. Thus, the Commission should not permit BA-NY to assess a manual loop qualification charge for competitors to obtain information that will be available, in the long run, in a mechanized fashion.

49. BA-NY proposes to apply a separate engineering query if a competitor requests more specific data relative to loop qualification than the company proposes to supply pursuant to its proposed manual loop qualification process. I understand that DSL providers such as Covad and Rhythms will typically require at least some information in addition to that included under the manual loop qualification description; therefore, it appears that most orders for loop qualification will invoke the engineering query charge. This engineering query charge purportedly reflects the cost of examining the company's mechanized ("LFACS") and paper ("plats") loop plant records, as well as the cost of MLT testing.

50. A common thread running through the description of all of BA-NY's loop qualification charges is the needless and costly interposition of BA-NY's engineering personnel between the competitor's engineering staff and BA-NY's primary mechanized sources of loop makeup data. This assumption is of concern not only because of the added cost and delay involved, but also because BA-NY's engineers are not in a position to know whether a particular loop is suitable for the specific DSL application that a competitor plans to deploy.

51. Much of the basic information that a competitor would need to determine whether a loop is qualified for its intended DSL application appears to reside within BA-NY's LFACS database. If the competitor's engineers had direct read-only access to LFACS (and other relevant

databases such as TIRKS) via an electronic interface, many or all of the engineering activities for which BA-NY seeks compensation through loop qualification charges would be unnecessary.

52. Mr. Donovan and Mr. Riolo establish in their Affidavit that direct read-only access to LFACS is entirely feasible. Providing competitors with such access would appear to fall within the FCC's non-discrimination requirements because BA-NY's own technicians have such access through portable terminals.

53. The FCC has determined that competitors purchasing unbundled network elements should have nondiscriminatory access to the incumbent's OSS and related databases.[18] This requirement includes databases useful for loop qualification.[19] Direct, read-only access to LFACS and other relevant databases is the most efficient way for competitors to obtain the data that they need for loop qualification. Thus, a forward-looking cost study for loop qualification should assume that the competitor has such nondiscriminatory access to LFACS and any other databases providing information relevant to loop qualification. BA-NY's loop qualification cost studies violate this assumption.

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[18] 47 C.F.R. § 51.313(c).

[19] The FCC's September 15, 1999, news release summarizing its Third Report and Order and Fourth Further Notice of Proposed Rulemaking in CC Docket No. 96-98 (FCC 99-238) states: "Incumbent LECs must unbundle OSS throughout their service territory. OSS consists of pre-ordering, ordering, provisioning, maintenance and repair, and billing functions supported by an incumbent LEC's databases and information. *The OSS element includes access to all loop qualification information contained in any of the incumbent LEC's databases or other records needed for the provision of advanced services.*" (Emphasis added.)

54. BA-NY may object that much of the information needed for loop qualification resides only in its plats, rather than in LFACS.[20] To the extent that is true, it reflects BA-NY's internal failure to populate LFACS, a legacy database that has been in place for many years. Mr. Donovan and Mr. Riolo explain in their Affidavit that BA-NY should have been populating LFACS with this information over the past several years. Nonetheless, BA-NY's own description of the tasks associated with its proposed manual loop qualification charge reveals the need to bring LFACS up-to-date. According to that description, BA-NY will be able to obtain the information needed for "manual" loop qualification in 80% of the cases through a combination of MLT and LFACS queries. In half of those cases, however, BA-NY indicates that its engineering clerk will need to check paper records and "update LFACS to ensure that the request for an ADSL-qualified loop can be processed on a mechanized basis."

55. BA-NY's failure to keep LFACS up-to-date is not the fault of a competitor ordering a DSL-capable loop. Nor should the competitor be held responsible for BA-NY's cost to update LFACS. As the Commission has previously observed, costs caused by BA-NY's recordkeeping failures "might well be subject to disallowance either on the grounds that to allow them now would be retroactive ratemaking or that the incurrence of extensive costs now, because of a failure to maintain these records properly in the past, would betoken imprudence."[21]

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[20] Rhythms has issued data requests to determine the degree to which BA-NY maintains the information required for loop qualification electronically for new plant (*i.e.*, on a forward-looking basis) in its current OSS and related databases. That information is more relevant to determination of the TELRIC for loop qualification than is the knowledge that some records for BA-NY's embedded plant have not yet been loaded into its electronic databases.

[21] Opinion and Order in Phase 2 at 72-73.

56. Moreover, the cost for routine maintenance and updating of BA-NY's existing OSS and related databases should be (and probably is) already reflected in BA-NY's recurring cost for loops and other unbundled network elements. Thus, there is a significant potential for double-counting if BA-NY also recovers these costs through the non-recurring charges for loop qualification.

57. For the reasons stated in the preceding two paragraphs, the Commission should disallow all costs related to routine maintenance and updating of LFACS that are reflected in BA-NY's cost support for its proposed ancillary charges for DSL-capable loops.

58. The Commission should also disallow in its entirety BA-NY's proposed recurring mechanized loop qualification charge. As I have explained above, BA-NY has chosen to design this database solely to meet the needs of its retail ADSL service. The mere fact that BA-NY will allow competitors to query a database that contains little information of value to them does not justify BA-NY's attempt to make its competitors subsidize its retail operations.

59. Instead, the Commission should require BA-NY to give competitors direct read-only access to the LFACS database at a price that does not exceed the *de minimis* incremental cost of the processor time necessary for a database "dip."

60. To the extent that a competitor requires loop makeup information that would normally reside within LFACS, but that BA-NY has failed to enter into that database, the Commission should require BA-NY to provide the information through whatever means necessary, including MLT and review of the company's plats. The efficient means of providing the same information would be a database "dip" into LFACS (or, possibly, allowing competitors

to perform their own remote MLT). Therefore, the price to the competitor for this function should not exceed the incremental cost of the processor time associated with such a dip.

Loop "Conditioning"

61. In addition to loop qualification charges, which apply to all or nearly all DSL-capable loops that a competitor orders,[22] BA-NY proposes to levy certain optional loop "conditioning" charges. Loop "conditioning" charges apply only when BA-NY performs some additional work on an existing loop, or "swaps" one loop for another, to provide a loop suitable for the competitor's DSL application.

62. The optional loop "conditioning" charges identified in BA-NY's tariff amendments are all non-recurring charges. The proposed charges include:

- $81.00 for an engineering work order;
- $220.73 for a pair swap,[23]
- $999.76 for an addition to ISDN loop extension electronics,
- $1090.87 or $1438.51 for removal of load coils for loops up to 21,000 feet or 27,000 feet in length, respectively; and
- $395.60 or $917.05 for removal of a single or multiple occurrence of bridged tap, respectively.

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[22] Indeed, a competitor is likely to incur loop qualification costs for more loops than it actually purchases to provide retail DSL-based services because some loops will prove to be unsuitable for its desired applications.

[23] This price most closely corresponds to the Joint Affidavit's description of a single "blended" rate for pair swaps. Exhibit A leaves some ambiguity concerning the applicable rate or rates for this non-recurring element because it includes costs (and, apparently, prices) on both a weighted and an unweighted basis. Because BA-NY has not actually provided updated tariff pages to correspond to the revised costs, I cannot be certain which prices it intends to apply.

As I understand the BA-NY tariff amendments, the engineering work order charge would apply whenever a competitor orders loop "conditioning." The competitor would also incur one or more of the other "conditioning" non-recurring charges.

Engineering Work Order Charge

63. The engineering work order charge purportedly recovers costs for a BA-NY engineer to "determine[...] work necessary to qualify loop" and "prepare[...] a written order for such work."[24] The first of these two tasks appears to be substantially duplicative of the engineering effort recovered through BA-NY's proposed engineering query charge, which it proposes to apply whenever a competitor orders a loop that requires conditioning. The task description for engineering work for the latter charge indicates that the BA-NY engineer will "[r]esearch[...] plant records and LFACS database to determine location of splice points, bridged taps, load coils, cable gauge, etc.; follow[...] cable counts from originating to terminating point; review[...] possibility of rearrangements, *etc.*"[25]

64. The Commission should not permit BA-NY to double-recover the cost of the engineering research needed to develop a work order for loop "conditioning." In an efficient process, BA-NY would retain the information developed through an engineering query for use in developing a subsequent work order. Therefore, if it permits any work order charge, the Commission should require BA-NY to exclude the time and cost associated with determining the work necessary to qualify a loop.

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[24] Joint Affidavit at ¶ 34.

[25] *Id.* at ¶ 32.

Pair Swap Charge

65. The pair swap charge purportedly recovers costs associated with "swapping" an existing pair serving a customer's premises with another pair that is more suitable for providing DSL-based services. The costs that BA-NY seeks to recover under this heading include costs for moving the drop and jumper and testing the new cross-connections.

66. There are several scenarios in which BA-NY may perform a pair swap. The swap may be from a DLC/fiber loop to an existing copper loop or from one copper loop to another. The swap may involve a spare (idle) pair or a pair already in use to serve another customer. Each variant of swap has a unique, undocumented likelihood of occurrence. The Pair Swap Charge is a single "blended" rate based on the weighted average of these scenarios.[26]

67. All of these scenarios are based on the embedded characteristics of BA-NY's loop plant, not on the forward-looking loop plant design that serves as the basis for BA-NY's proposed recurring charges for unbundled DSL-capable loops. As I explained above, it is inappropriate, and a violation of TELRIC principles, to calculate recurring and non-recurring costs for the same element based on different network configurations.

68. BA-NY's proposed basic monthly recurring charges for unbundled DSL-capable loops "are based on existing, Commission-approved recurring loop rates for two- and four-wire analog loops."[27] The recurring costs for two- and four-wire analog loops normally include costs

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[26] *Id.* at ¶ 38.

[27] *Id.* at ¶ 16.

associated with placement of drops and jumpers for all of the loops in the study, including the spare loops.

69. If BA-NY's approved recurring costs for unbundled analog loops comply with TELRIC principles, they must reflect the cost of a network sized to meet both existing and reasonably foreseeable demand.[28] The usual approach to network sizing is to "gross up" current demand by using fill, or utilization, factors less than one. The spare capacity in loop cost studies normally accounts for the possibility of defective pairs and a degree of "churn" in the types of services demanded and the precise locations at which those services are demanded, as well as for near-term growth in demand. Thus, in a forward-looking world, one would never expect to be told that there are "no facilities" available.

70. Loop cost studies typically load a proportionate share of the costs of this spare capacity onto the cost of each loop actually assumed to be in use. Thus, a competitor that purchases the use of an unbundled loop at a monthly recurring charge based on the per-loop recurring cost in a TELRIC study has, in effect, prepaid for the use of any spare capacity needed to ensure that facilities are available for the competitor's intended use. The prepayment reflects both the capital cost of the spare facilities *and* the labor cost of making an end-to-end connection from the customer's premises to the incumbent's main distribution frame. Moreover, it is my understanding that the approved BA-NY recurring loop cost studies include a substantial amount

[28] FCC 96-325, First Report and Order, In the Matter of Local Competition Provisions in the Telecommunications Act of 1996, at ¶ 685.

of "rearrangement" expenses as well, to reflect the ongoing operations and maintenance costs associated with activities such as transferring service from a defective pair to a spare pair.

71. The Joint Affidavit contains only a cursory description of the instructions given to the subject matter experts who provided information concerning the worktimes used in BA-NY's cost support for its ancillary charges. This description does not indicate that those experts were given any information concerning the tasks and costs already included in BA-NY's recurring cost studies for unbundled loops. Thus, there is a nontrivial chance that the task times and associated costs reflected in the Exhibit A cost studies overlap with costs already incorporated in the recurring charges for these loops.

72. The Commission has found that BA-NY's previous costing methodology did not adequately recognize and remove double counting between its recurring and non-recurring cost calculations.[29] Nonetheless, BA-NY does not appear to have modified its approach to guard against such double counting in its cost support for the ancillary charges related to DSL-capable loops. Certainly, the Joint Affidavit makes no such claim.

73. The Joint Affidavit also does not suggest that BA-NY informed its subject matter experts of the policy positions concerning pair swap charges that BA-NY presented at the September 15, 1999, meeting of the collaborative in Case 98-C-1357. Attachment TLM-2 to this Affidavit is a BA-NY document titled "Freeing Up Copper Facilities." This document, which BA-NY submitted to the collaborative, identifies several "pair swap" scenarios that are allegedly

[29] Opinion and Order in Phase 2 at 40-43.

transparent to the competitor requesting an unbundled DSL-capable loop and that BA-NY will perform with no charge.

74. The level of documentation provided in the Joint Affidavit and Exhibit A thereto is insufficient to determine possible inconsistencies between the cost support for the Pair Swap Charge and BA-NY's positions in the collaborative. For example, one cannot tell whether the weighting factors used to calculate the blended Pair Swap Charge exclude situations in which BA-NY has told the collaborative it will perform a transparent pair swap at no charge to the competitor.

75. Furthermore, as Mr. Donovan and Mr. Riolo point out in their Affidavit, BA-NY could reduce the need for pair swaps by changing its own policies. For example, there would be no need for pair swaps from fiber-fed DLC loops to copper loops if BA-NY allowed competitors to gain access to remote DLC sites and multi-hosting DSLAMs or to choose line cards that would allow competitors to provide DSL-based services over fiber. Also, if BA-NY permitted its competitors to offer their DSL-based services over the same lines that BA-NY uses to provide voice services, there would be more facilities available to competitors and less likelihood of a "no facilities" condition requiring a pair swap.

76. The Commission should not permit BA-NY to impose any pair swap charge unless and until it has provides further documentation. Such documentation should demonstrate that the charge will not: (1) double-recover costs already reflected in the basic monthly recurring charge for unbundled analog loops; and (2) recover costs for pair swaps that BA-NY has told the collaborative it will perform transparently and at no charge. Moreover, the Commission should

not permit BA-NY to impose a pair swap charge based on BA-NY's embedded plant configuration while simultaneously imposing recurring charges based on a forward-looking network configuration with 100% fiber feeder and DLC systems.

Removal of Load Coil Charge

77. BA-NY has proposed an optional loop "conditioning" charge for removal of load coils on copper loops that exceed 18,000 feet.[30] The number of load points depends on the length of the loop; therefore, BA-NY has identified separate charges for loops up to 21,000 feet and loops from 21,000 to 27,000 feet in length.

78. As I explained in my discussion of the TELRIC methodology above, BA-NY's proposed non-recurring charge for removal of load coils is inconsistent with TELRIC principles. The forward-looking network design on which BA-NY has based the recurring charges for unbundled DSL-capable loops does not include any load coils. A mix-and-match approach to calculating recurring and non-recurring costs for the same element produces a biased estimate of the true forward-looking cost associated with that element.

79. Even if it were appropriate for BA-NY to levy a non-recurring charge for removal of load coils, the level of detail in the cost support provided in the Joint Affidavit and Exhibit A thereto would be insufficient to justify the level of charge that BA-NY has proposed. As I discussed above, BA-NY has not provided even basic support that would allow analysis of its

[30] For loops of 18,000 feet or less, BA-NY acknowledges that its own design standards do not call for load coils; therefore, it has offered to remove any extant coils without charge.

specific task time estimates. Moreover, BA-NY's analysis incorporates other questionable, unsupported assumptions.

80. For example, the proposed charge reflects a weighted average of the cost of removing load coils in an aerial environment and an underground environment. According to BA-NY's own study, the costs associated with removal of load coils is far higher in an underground, as opposed to aerial, environment. The high cost of work in an underground environment receives an (unexplained) 69% occurrence factor, or weighting, whereas the lower cost of work in an aerial environment receives only a 31% weighting.

81. The 69% weighting for work in an underground environment is, on its face, implausible. As Mr. Donovan and Mr. Riolo note in their Affidavit, BA-NY's own ARMIS data suggest that the 69% underground factor is far higher than the average actual occurrence of underground structure in BA-NY's network. Furthermore, BA-NY proposes to charge for removal of load coils only when the total loop length exceeds 18,000 feet. Such long loops are typically found in suburban and rural areas, where underground structure is much less common than in urban areas.

82. BA-NY clearly did not take the length of loops into account in developing the weighting of underground versus aerial plant. It used the same weighting factors to calculate the cost for removal of bridged tap, yet BA-NY proposes to apply the removal of bridged tap charge for loops under 18,000 feet as well as the longer loops for which the removal of load coil charge applies.

83. Mr. Donovan and Mr. Riolo explain in their Affidavit that it is a standard, efficient engineering practice to deload more than one loop at a time, yet BA-NY has calculated costs for removal of load coils as if it were only deloading a single loop at a time. Rhythms has issued data requests to explore the potential for deloading multiple loops at a given location. Until I have seen the responses to those requests, I cannot propose any specific adjustments to BA-NY's cost results to reflect the savings from simultaneous deloading of multiple loops.

Removal of Bridged Tap Charge

84. BA-NY has also proposed two non-recurring charges for removal of bridged tap: one for the removal of a single bridged tap on a particular line and the other for removal of multiple bridged taps. The latter charge reflects a simple average of the costs for removing two or three bridged taps.[31] BA-NY will, without charge, remove bridged tap exceeding 6,000 feet on loops under 18,000 feet long. In all other instances, it proposes to charge the competitor for removal of bridged tap if necessary to make the loop suitable for carrying DSL-based services.

85. BA-NY has not provided any explanation for the distinction in treatment between bridged tap of greater than or less than 6,000 feet. As Mr. Donovan and Mr. Riolo note in their concurrently filed Affidavit, standard engineering design criteria that have been in place for decades limit the amount of bridged tap for all loops. It is entirely appropriate for BA-NY to remove bridged tap that exceeds its own design standards without charge. However, the offer to

[31] Typical of its lack of documentation of cost study assumptions, BA-NY provides no support for this 50/50 weighting of the costs of removing two and three bridged taps. Rhythms has propounded data requests to determine the basis for this assumption.

remove bridged tap in excess of 6,000 feet does not go far enough to meet the engineering design standards described by Mr. Donovan and Mr. Riolo in their Affidavit.

86. Specifically, Mr. Donovan and Mr. Riolo demonstrate that the Carrier Serving Area ("CSA") design standard, which has been in place since 1980, limits the total amount of bridged tap on a line to 2,500 feet. They also state that a prior design standard, the Serving Area Concept ("SAC") in place since 1972, called for bridged tap to be minimized.

87. Given these long-standing design standards, BA-NY should not impose a charge for removal of bridged tap in excess of 2,500 feet on loops of any length. Nor should it impose any charge for removal of bridged tap between load coils, as Mr. Donovan and Mr. Riolo also establish that the existence of such bridged tap violates standard engineering guidelines.

88. The removal of bridged tap charge is yet another example in which BA-NY's proposed loop "conditioning" charges reflect an embedded network design that differs from the forward-looking design assumed in the cost studies on which BA-NY proposes to base recurring charges for DSL-capable loops. As Mr. Donovan and Mr. Riolo explains in their Affidavit, there would be no bridged tap in the all-fiber-feeder network design assumed in the BA-NY recurring cost studies.

89. Moreover, as I noted above, the FCC's universal service order imposes specific requirements on the network design assumed in calculating the forward-looking economic cost of POTS services. One of these requirements is that the network design must be compatible with the universal provision of advanced services. Thus, to be consistent with the FCC's guidelines for forward-looking cost studies, BA-NY's cost studies for unbundled voice-grade loops should

assume that bridged tap does not exceed the amount allowable for provision of services such as ISDN and DSL-based services.

90. Once again, BA-NY has created a mix-and-match scenario that overstates the total forward-looking cost of providing service. Its proposed recurring charges do not reflect the cost savings attributable to the use of bridged tap (and should not, because use of excessive bridged tap is inconsistent with the engineering standards applicable to a forward-looking network design).[32] Yet its proposed non-recurring charges for removal of bridged tap reflect the disadvantages of a plant design that interferes with the provision of DSL-based services.[33]

91. Because *any* charge for removal of bridged tap is inconsistent with the assumed network design in BA-NY's recurring cost studies, the Commission should not allow BA-NY to impose such a charge.

ISDN Loop Extension Electronics Charge

92. BA-NY proposes a non-recurring charge for an "ISDN Loop Extension Electronics Charge," which would apply "when a CLEC orders a two-wire digital link ... and the loop length is greater than 18,000 feet."[34]

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[32] BA-NY describes those advantages in footnote 4 of the Joint Affidavit as follows: "Bridged taps are a branching of a copper loop that permits the "appearance" of the loop at a number of alternative serving terminal locations. Bridged taps give a telephone company greater flexibility in re-assigning a telephone number to a different address without re-arranging existing facilities."

[33] Again, at footnote 4 of the Joint Affidavit, BA-NY acknowledges these disadvantages: "An addition to adding length to a loop (and thus impairing its transmission characteristics), bridged taps create interference through reflection of signals from the point where the loop branches."

[34] Joint Affidavit at ¶ 48.

93. The bulk of BA-NY's $903.23 direct cost estimate for this element consists of the $740.00 material cost for the repeater itself. The remainder of BA-NY's reported cost is for engineering, central office and outside plant technician time required to install the repeater system.

94. BA-NY's reported cost is problematic in at least three ways.

95. First, it is likely that BA-NY's reported non-recurring cost for this element is entirely duplicative of costs recovered through its recurring charges for digital loops. It is my understanding that BA-NY assumed fiber feeder systems, with appropriate electronics, to develop its recurring costs for all loop types at all distances. Therefore, BA-NY's existing recurring costs for the digital line would already include the cost for the required electronics — regardless of loop length.

96. BA-NY's assumption that it should charge for repeaters provides an excellent illustration of why it is improper to assume a different architecture to develop recurring and non-recurring costs. ISDN repeaters would be required for long copper facilities, but not for the fiber and DLC systems assumed in the approved recurring cost studies for unbundled loops. The assumption of fiber-fed DLC in BA-NY's cost analysis for digital links leads to a higher recurring charge than would be necessary in a network design that assumes at least some copper feeder. (Although I have not reviewed the recurring cost studies on which BA-NY based its current prices for digital links, my experience with other such cost studies leads me to believe that the primary basis for this higher charge is the cost of the additional electronics required for

fiber systems.) At the same time, BA-NY proposes to impose a non-recurring charge to recover the additional cost of repeaters needed to provide ISDN-type services over longer copper loops.

97. Second, BA-NY should have treated the repeater material cost as a recurring cost. If the repeater could not be used to serve a future customer at the same location, it could be reused to provide ISDN services to any BA-NY retail customer. It is therefore discriminatory, at best, for BA-NY to treat the investment for repeaters as non-recurring cost in the case of services provided to new entrants.

98. Third, BA-NY has failed to support the basis for its proposed cost. For example, it is not clear from the BA-NY study whether the repeater it includes can serve only a single line. Moreover, BA-NY has not supplied any information concerning the specific basis for the time estimates associated with engineering and installation labor in its "ISDN Loop Extension Electronics Charge" cost analysis.

99. For all of these reasons, the Commission should reject BA-NY's proposed ancillary charge for ISDN Loop Extension Electronics.

Summary and Conclusion

100. BA-NY's proposed ancillary charges for unbundled DSL-capable loops are based on cost studies that violate TELRIC principles and lack sufficient documentation and support. Even on an interim basis, the Commission should not permit BA-NY to impose the charges proposed in its tariff amendments. The high level of those charges, particularly when one considers the cumulative effect of the multiple loop qualification and "conditioning" charges that a competitor might incur, would be a strong deterrent to competitive provision of DSL-based

services during the interim period. This anticompetitive result would be contrary to the public interest in making a wide variety of advanced DSL-based services available to New York consumers.

FURTHER AFFIANT SAYETH NAUGHT.

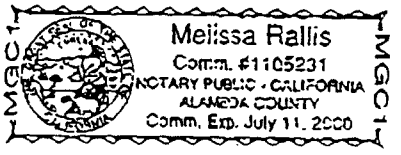
Terry L. Murray

TERRY L. MURRAY

Subscribed and sworn to before me
this 23rd day of September, 1999.

Melissa Rallis

Notary Public, State of California



My commission expires: July 11, 2000